



DRAFT

Government of the
Republic of South Sudan

Petroleum Policy

~~2614 January-December 2012~~

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0. EXECUTIVE SUMMARY

The petroleum resources of South Sudan shall be owned by the South Sudanese people and managed on their behalf by the Government. Oil and gas are non-renewable resources which should be transformed as far as possible into other forms of wealth to support longer term growth and development such as physical capital (infrastructure) and human capital (education).

This Petroleum Policy shall form the foundation of legislation, regulation and practical public management of the petroleum sector of South Sudan. The Policy acknowledges that the petroleum industry will be supremely important for the financing of the public sector of South Sudan. The highlights of the Policy include the following main principles:

CHALLENGES FOR SOUTH SUDAN

- The oil production in South Sudan ~~at the end of 2011 was~~ is presently close to 400,000 barrels per day. The oil fields however, have now passed their peak production and will enter into a phase of decline. Without additional recovery or new discoveries the production from the existing fields will only be about 1/3 of ~~today's~~ the 2011 level a decade from now.
- The present estimated recovery from the producing fields is about 24% which is far below international levels. It will be a priority for the Government to take measures to improve the recovery through IOR/EOR activities.
- It is essential for a prudent management of the petroleum resources to have a thorough understanding of the total resource potential. The Government will emphasise and prioritize resource assessment of the areas with oil and gas potential.
- The ~~existing~~ blocks that were awarded by in Sudan are very large by any international standard. This ~~—~~ makes an effective exploration difficult to achieve.

The Government will implement a policy which encourages the process of relinquishment of areas without active exploration.

- In a situation where there is uncertainty about of the sustainability of the production level, the production forecast from the existing fields will be used as a planning basis.
- A conservative production forecast implies that care should be taken to find a balanced level with regard to capacity building.
- The uncertainty with regard to production also places additional demands on the economic considerations and the assessment of long-term oil supply for downstream industrial development.
- The uncertainty about future production and resulting revenues also means that extra weight should be put on measures to safeguard this revenue stream against unwise use, corruption etc. The overarching goal should be to use the petroleum revenues in the best way to benefit the people of South Sudan

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PRINCIPLES OF GOVERNANCE AND REVENUE MANAGEMENT

- South Sudan shall manage the petroleum sector in a fully transparent and accountable manner on the basis of environmentally and socially sustainable principles ensuring that the people of South Sudan benefits equitably from the petroleum activities. The petroleum management shall be cognizant that petroleum is a limited non-renewable natural resource. South Sudan must therefore plan for a future when the petroleum has been depleted and the country shall have to rely on other economic activity for its existence and prosperity.
- Managing oil revenues is a central part of planning and economic policy. The phasing in of oil revenue into the

economy of South Sudan is an essential part of fiscal policy and is the responsibility of the Ministry of Finance & Economic Planning.

- All revenue from the petroleum activities received from the IOCs and Nilepet shall be published annually and full information about how these revenues are used shall be publicly available.
- Savings rules for petroleum revenues will be established such that a part of that non-renewable resource is transformed into other types of wealth for longer term growth and development, and only a part shall be used for short-term consumption purposes. A savings mechanism will be established to ensure that this rule will be enforced as far as possible.
- The petroleum sector shall adhere to a zero-tolerance of corruption as stipulated in the ~~South Sudan~~ Anti-corruption Act.
- ~~The Government South Sudan~~ shall take the necessary measures to become an Extractive Industries Transparency Initiative (EITI) Candidate Country and implement the EITI criteria and principles.

BASIS FOR PETROLEUM INDUSTRY IN SOUTH SUDAN

- ~~Petroleum sector management shall aim at optimal usage of existing production and transportation infrastructure. Use of the existing transportation infrastructure will depend on technical, political and economic considerations. Hence, the Government will enter into the required agreements with the authorities in Khartoum on appropriate terms and conditions for transportation services.~~
- The Government will ~~also~~ enter agreements to secure the supply of petroleum products and to avoid any interruption in the production or transport of oil.
- South Sudan recognises that it is unable to develop and benefit from the petroleum sector without the participation and operational assistance

of international oil companies (IOCs). The Government will therefore seek to maintain a climate of good cooperation with the IOCs.

- As a rule, rights to carry out petroleum operations, such as through Exploration and Production Sharing Agreements (“EPSAs”), shall be granted on a non-discriminatory basis through transparent public tender competitions. The national oil company, Nilepet, shall enjoy certain preferential rights in EPSAs in order to develop South Sudanese capacity and petroleum competence.ﷺ
- Petroleum activities on-going in South Sudan at the time of the secession from the Sudan ~~shall be have been~~ regulated by new petroleum agreements (Transitional Agreements) with the same production sharing arrangements as those contained in the prior contracts, subject to ~~the~~ certain further conditions. However, the Government shall review the terms of these agreements to identify areas of non-compliance with the Petroleum Act, the policy principles adopted and the needs of South Sudan. The Transitional Agreements~~contracts with the oil companies parties to prior contracts~~ shall then be renegotiated. The Ministry must be empowered to carry out this review, in consultation with the Ministry of Finance and Economic Planning, renegotiate the contracts and enter into new agreements, under the direction and with the approval of the National Petroleum and Gas Commission.Legislative Assembly.

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1. INTRODUCTION

1.1 BACKGROUND

The signing of the Comprehensive Peace Agreement in 2005 gave South Sudan the opportunity for the first time, to share in the wealth and management of the petroleum sector. Now that South Sudan is a sovereign nation, it is preparing to take on a larger responsibility to manage the sector with an objective to optimise the value of the petroleum resources.

The revenues generated from the petroleum production constitute a dominant part of the income of South Sudan. It is the goal of the Government to develop alternative sources of income and reduce the oil sector dependency. Still, the petroleum revenues will is expected to dominate the national budget in the years to come. It is therefore important to develop a policy to guide the independent management of the petroleum resources in the country.

The objective of the petroleum policy is to strengthen the management of petroleum resources in a way that contributes fully to economic prosperity and human development.

Furthermore, the purpose is to set the fundamental basis on which laws and legislations pertaining to different phases of petroleum activities that will be enacted.

1.2 POLICY PERSPECTIVE

The Government recognises that petroleum is a non-renewable resource which implies an obligation and duty to manage the resources for the benefit of both present and future generations.

1.2.1 The characteristics of the petroleum sector

The petroleum sector is characterised by:

- High economic value and strategic importance for development
- Substantial impact on the society including:
 - Government revenues
 - Macro economy
 - Industrial development
 - Employment and social structure
- Substantial risks associated with petroleum activities related to:
 - Exploration
 - Environment
 - Economy and social development
 - Conflict and social unrest

1.2.2 The petroleum sector in the economy of South Sudan

The petroleum sector shall be is the leading sector in financing the activities of the Government of Southern Sudan. The Government recognises the non-renewable nature of petroleum resources and also the volatility of the international market price. This represents a challenge and risk to the budget. It is the intent of the Government to use oil revenues to develop non-oil sectors.

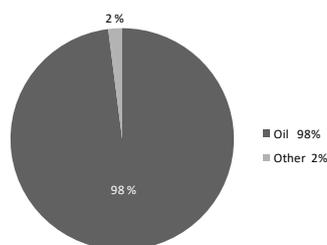


Fig. 1 GoSS revenue distribution by source, 2010

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1.2.3 International protocols and charters

The Government shall subscribe to and abide by international protocols and charters relevant to the petroleum sector provided that those protocols and charters do not conflict with national laws.

1.3 THE PETROLEUM RESOURCE BASE OF SOUTH SUDAN

1.3.1 Licensing history and companies

The sedimentary basins of South Sudan owe their existence to the rifting periods of the western, central and east African rift systems. There are two main basins of importance for the oil and gas activities in South Sudan, the Melut and Muglad basins.

The Melut Basin is situated in the states of Upper Nile and Jonglei east of the river Nile. Melut Basin is a Mesozoic-Cenozoic rift basin trending NW-SE. The basin is composed of 5 sub-basins of which the northern sub-basin is the biggest. All the sub-basins are half-grabens initiated from early Cretaceous. The source rocks are lacustrine shales of Late Cretaceous age. The main reservoir is Paleocene-Eocene sandstone of Yabus and Samma formations. The Melut Basin has a substantial petroleum potential and more than 15 oil fields have been discovered.

The Muglad basin, stretching deeply into Western Upper Nile, is the largest of the interior cratonic basins of South Sudan and covers an area of approximately 120,000 km². It is part of a trend of Cretaceous sedimentary basins of rift origin in Central Africa. The basin is estimated to contain as much as 15-20

kilometers of non-marine sediments. The Muglad Basin contains a thick sequence of nonmarine sediments, which range in age from Cretaceous to Tertiary. Exploration results have proved hydrocarbon systems in both the Tertiary and Cretaceous sections. The main hydrocarbon play is located in the Cretaceous sequence. The source is the Lower Cretaceous lacustrine shale of Abu Gabra Formation. The reservoir is the braided-stream sandstones of Bentiu Formation, and the top seal is the fluvial shale of the Aradeiba Formation. The Muglad Basin contains a number of hydrocarbon accumulations of various sizes, the largest of which are the Heglig and Unity oil fields.

Oil exploration started in 1959 when Agip was granted offshore concessions in the Red Sea area. Subsequently, other western oil companies (Oceanic Oil Company, Total, Texas Eastern, Union Texas and Chevron) commenced exploration. However, no commercial discoveries were made and most companies relinquished their concessions. In 1974 Chevron as operator of a consortium started new exploration efforts across its 516,000 km² license. In 1978 the first oil discovery was made and subsequently named Unity. In 1981 a second and more moderate find, the Adar Yale Field, was made in the Melut Basin east of the White Nile. In the following year Chevron made a third, much

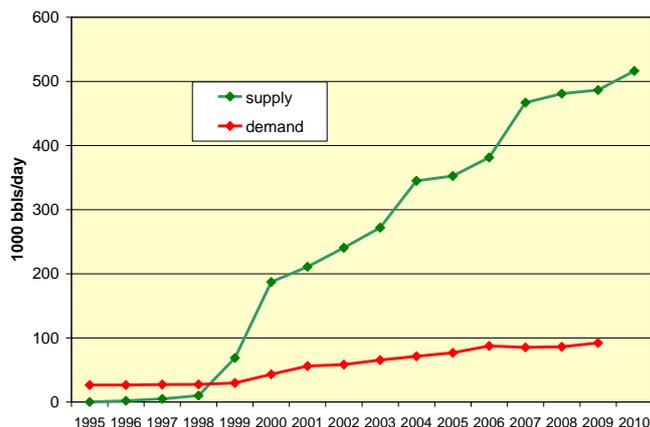


Fig.2 Sudan; (including South Sudan) oil supply and demand 1995 - 2010

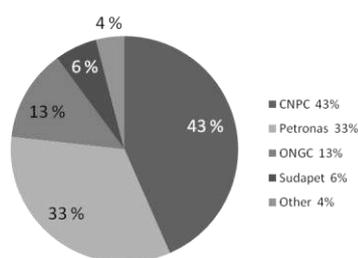
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larger discovery in Heglig, 70 km north of the Unity field. In 1980, ~~Sudan the Government~~ granted a 118,000 km² concession to Total, but activities in the field have not restarted after signing of the CPA due to security problems.

Chevron began to develop the Unity and Heglig fields, but suspended operations in 1984 when political unrest erupted. Chevron decided to withdraw from Sudan and subsequently sold its interests in 1991. The Government divided the former Chevron concessions into smaller units, and in 1992 awarded Blocks 3 and 7 in the Melut Basin to Gulf Petroleum Corporation (GPC). Arakis Energy Corporation from Canada with its partner State Petroleum acquired former Chevron Blocks 1, 2 and 4. Arakis made several new oil discoveries, but never raised sufficient capital to finance the project. In December 1996 Arakis sold a 75% interest in its project to state-owned oil companies from China, Malaysia and Sudan, forming a consortium called the Greater Nile Petroleum Operating Company (GNPOC).

In October 1996 GNPOC reopened Chevron's wells and in March 1997 production and first export of Sudanese crude oil commenced.

As a consequence of the sanctions imposed by the international society, the participation in the petroleum sector is dominated by Asian state oil companies with CNPC and Petronas jointly controlling more than 75% of the equity in producing fields.



1.3.2 Resource inventory, size and probabilities

According to the BP Statistical Review of World Energy 2010 the ~~combined Sudan and South Sudan~~ oil reserves ~~are were~~ 6.7 billion bbl. ~~On that basis, Sudan was~~ rated ~~as~~ number 5 in Africa based on the reserve volumes. ~~Approximately~~ 75% of these reserves ~~are were~~ located in South Sudan.

More than 15 fields have been discovered in the Melut Basin. Great Palogue is the largest field having about 900 million bbl of reserves. The Moleeta, Gumry, Nahal, Zarzor and Mishmish represent other significant discoveries. The Palogue, Moleeta and Gumry are estimated to have 1.3 billion bbl of initial reserves and about 200 mill bbl has been produced.

The Heglig Field together with Unity, Bamboo and Neem located in Block 1, 2 and 4 in the Muglad Basin are estimated to have initial reserves of 1.6 billion bbl. About 800 million bbl has been produced so far. The fields had

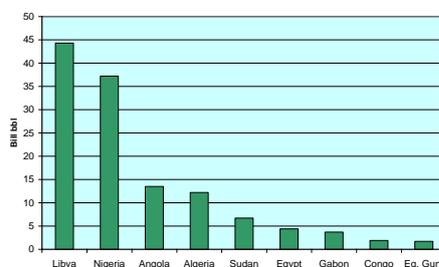


Fig. 4 African countries' oil reserves

their peak production of about ~~280,000~~ bbl/day in 2005.

The petroleum basins in South Sudan are underexplored. The licenses awarded have been very large by any international standard. As a consequence the oil companies operating the licenses have been focusing on the main leads. It is expected that a number of smaller

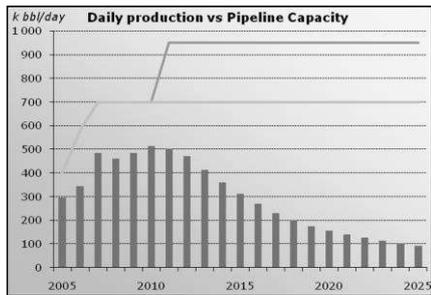
and more challenging oil and gas accumulations are left to be found.

The Government recognises that the key for a prudent licensing strategy and the development of new discoveries will rest on a thorough understanding of the resource potential. To achieve this, the Government shall introduce a system for resource accounts and establish a resource inventory to determine the size and probability of additional oil and gas fields.

1.3.3 Production scenarios

~~The present production in South Sudan peaked at close to 450,000 bbl/day. Sudan is the 6th largest producer on the African continent.~~ It is an objective to maintain the production at a similar level for the next decade. A substantial increase in the exploration efforts is needed if this objective shall be met. The Government shall implement a licensing policy that will stimulate further exploration activities in new frontier areas.

The present recovery factors from the producing fields are below international levels. The Government shall ensure that the



best proven recovery methods to optimize production in producing fields are implemented. The Government will review incentives and contractual framework to achieve this.

1.3.4 Infrastructure

Sudan has two refineries with a total capacity of 121,600 bbl/day. The Al Jalia refinery located north of Khartoum, set up as a 50/50 joint venture between the Government and the CNPC, has a refining capacity of 100,000 bbl/day. A major upgrade adding an extra capacity of 50,000 bbl/day, to be financed by CNPC has been announced. The second refinery is in Port Sudan on the Red Sea near the export terminal with a capacity of 21,600 bbl/day. However, at this time, political considerations render the continued use of these facilities problematic and the Government shall explore alternative facilities.

Sudan's pipeline network consists of two major segments. In August 1999, the 28 inch, 1610 km Greater Nile Oil Pipeline was opened, connecting Heglig with Khartoum and Port Sudan at a maximum capacity of 450,000 bbl/day. In 2005 the 32 inch Melut Basin Pipeline was inaugurated. It runs from Adar Yale to Port Sudan, has a maximum capacity of 500,000 bbl/day and is operated by Petrodar. In addition, Block 6 is connected with a 24 inch, 760 km pipeline to the Khartoum refinery operated by the CNPC with a maximum capacity of 200,000 bbl/day.

Because of current disagreements between Sudan and the Government and the Republic of Sudan regarding the pipeline network, The Government shall continue to use the existing infrastructure and shall enter the required agreements with the authorities in the north to ensure its efficient use.

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2. POLICY PRINCIPLES

2.1 NATIONAL DEVELOPMENT OBJECTIVES

2.1.1 Petroleum policy objective

The overall objective of petroleum sector development is to maximise the value of the petroleum resources and to convert this value into lasting benefits for the current and future generations and to ensure the use of best internationally known practices that minimise the environmental impact. Petroleum sector policies shall contribute towards the national development objectives. These objectives are expressed in the Transitional Constitution of the Republic of South Sudan, 2011.

2.1.2 Economic Objectives

The overall goal of economic development strategy in South Sudan shall be the eradication of poverty, attainment of the UN Millennium Development Goals, guaranteeing the equitable distribution of wealth, redressing imbalances of income and achieving a decent standard of life for the people of South Sudan.

2.1.3 Education

The Government shall promote education at all levels to create the necessary qualified cadres for development.

2.1.4 Environment

Every person shall have the right to a clean and healthy environment. The environment shall be protected for the benefit of present and future generations, through reasonable legislative action and other measures that prevent pollution and ecological degradation, promote conservation and secure ecologically sustainable development. The Government shall promote energy policies that will ensure that the basic needs of the people are met while protecting and preserving the environment.

2.1.5 Equitable Sharing of Common Wealth

The Government shall promote the participation of the people of South Sudan in the formulation of its development policies and programmes. The sharing and allocation of resources and common wealth of South Sudan shall be based on the premise that all states, communities and localities of South Sudan are entitled to development without discrimination, with the proviso that the Transitional Constitution requires that 2% of the net oil revenues shall be allocated for use of the oil-producing states and 3% of such revenue be allocated to local communities within the oil-producing states.

2.1.6 Land and Natural Resources

Communities and persons enjoying rights regarding land shall be entitled to prompt relocation and equitable compensation on just terms, arising from acquisition or development of land for the extraction of subsurface natural resources.

2.2 MANAGEMENT OF THE PETROLEUM SECTOR

2.2.1 Resource ownership and jurisdiction

The petroleum resources of South Sudan shall be owned by the people of South Sudan and shall be managed on their behalf by the Government. The Constitution empowers Parliament to make laws regulating the exploration and exploitation of petroleum, providing the legal framework under which the Ministry of Petroleum and Mining regulates and manages the petroleum activities.

2.2.2 Good governance principles

Management of petroleum resources shall be based on principles of good governance:

- Accountability – decision makers and the private sector are accountable to stakeholders and the public
- Transparency – built on openness with information

- Fairness – equal opportunity and the rule of law
- Effectiveness and efficiency – institutions and processes that get the job done and make the best use of resources

2.2.3 Capacity building

National capacity building is the key to achieving national participation and benefits from the oil and gas activities. The Government shall develop and strengthen local human and capital resources with a view to fostering local participation in all aspects of petroleum operations and management.

- Formal education and training programmes shall qualify local staff for technical and management tasks
- MPM and Nilepet shall serve a key role for the capacity building by becoming competence centers and by promoting local capacity building in the states where petroleum operations take place
- Oil companies shall actively contribute to local capacity building through formalized training obligations that come as partial requirement for obtaining a license or contract
- Technology transfer from operating oil and service companies shall be encouraged through local content requirements

2.2.4 Efficient resource management

Maximising the value of the petroleum resource requires efficient resource management through relevant state institutions. Government shall ensure sustainable operations to minimize adverse impact and maximize the financial return. Important in this regard are the choice of industry players and the use of the best technology available.

2.2.5 Transparency and accountability

The Government shall establish a system of high standards of transparency and accountability which is required in licensing, procurement, exploration and development operations as well as in management of the

revenues from oil and gas. The Government shall disclose and publish all payments and revenues received by the Government (including agencies and local authorities) in the oil and gas sector using simple and easily understood principles in line with accepted national and international financial reporting standards.

- Relevant information and data from all parts of the petroleum value chain shall be made available to the public.
- Relevant institutions with enforcement authority shall be accountable to stakeholders and to the public.
- The Government shall take the necessary measures to become an Extractive Industries Transparency Initiative (EITI) Candidate Country and implement the EITI criteria and principles.

2.2.6 Anti-corruption measures

The petroleum sector shall adopt zero-tolerance on corruption as stipulated in the South Sudan Anti-corruption Act *inter alia* by ensuring that the petroleum sector is managed in a fully transparent and accountable manner and by ensuring public access to information.

2.2.7 Competitiveness and predictability

To ensure fair competition among the bidders, the Government shall grant new rights to carry out petroleum operations, such as through EPSAs, through open, free non-discriminatory and fair tender competitions. Nilepet shall however, enjoy a preferential status by being allocated participating interests in EPSAs without competition in order to develop South Sudanese capacity and petroleum competence.

2.2.8 Benefits to all stakeholders

The Government's aim shall be that the value and development created by the petroleum

activities benefit all stakeholder groups and that conflicts and aggression between different stakeholder groups are avoided through a participatory management system.

The Government shall in collaboration with oil operating companies, seek to develop permanent infrastructure in oil operating areas to enhance the livelihoods of local communities.

2.2.9 Public access to information

The Government shall disseminate information to the public on the oil and gas operations from the planning phase to decommissioning, revenue generation and utilization.

The operating oil companies shall establish constructive dialogue mechanisms with the stakeholders to ensure public access to all relevant information on the activities.

2.2.10 Health, safety and environment

To achieve a sustainable development the Government is committed to high standards regarding health and safety, environmental protection and social development. The environmental and social standards reflected in the guidelines of the World Bank Group, shall be considered as a benchmark throughout the lifecycle of oil and gas developments from planning through to decommissioning and abandonment.

The precautionary principle applies throughout the life cycle as prevention is more effective than mitigation.

The Government shall formulate control measures against the release of hazardous gases, liquid or solid wastes and spills into the atmosphere, water bodies, aquifers and soils to ensure safe environmental conditions. In case of accidental events the polluter pays principle applies.

The MPM, acting through the Petroleum ~~Regulatory~~ Exploration and Production Authority, which will be a Directorate or section within MPM, shall, in consultation with other relevant institutions be responsible

for environmental and social impact assessment processes, compliance supervision and monitoring, enforcement as well as emergency response preparedness.

Response mechanisms for accidental events relating to oil and gas developments shall be implemented with the aim to safeguard food security, the natural environment and the population as a whole.

All operating companies shall prepare and document their emergency response plans, and be responsible for their implementation once reviewed by the relevant authority.

Efforts shall be made for regional cooperation in order to establish the most effective emergency response preparedness.

The following outlines key responsibilities:

- Establish detailed regulations to ensure full protection of the environment. Key focus shall be given to ecologically sensitive areas and sites of cultural heritage
- Regions with petroleum potential shall be subject to a Strategic Social and Environmental Assessment (SEA) prior to any petroleum activity commencing to ensure adequate consideration of cumulative effects and spatial planning
- An approved Environmental & Social Impact Assessment (ESIA) is required to be undertaken by a project proponent prior to any physical petroleum operations in South Sudan
- Operators must immediately report any incidents to the concerned authorities (oil spill, gas emission, fatalities, etc) and operate in accordance with applicable national laws and regulations, international conventions as well as international best practice
- The Government shall develop a publicly accessible database or information center for environmental information
- The Government may terminate or suspend the operation in case of severe non-compliance with environmental

standards, injury or failure to observe South Sudanese laws and regulations

- Ensure compliance with international occupational health and safety standards as ISO (International Organization for Standards) or OSHAS (Occupational Health and Safety Standards). HSE regulations, systems and practices shall identify (among others):
 - Roles and responsibilities
 - Safety in operation of facilities
 - Technical safety systems
 - Occupational health and safety hazards and their mitigation
 - Inventory, reporting and follow-up of incidents and dangerous occurrences, including- lessons learnt
 - Inspection, survey and certification of installations and their equipment.

to achieve lasting and sustainable growth and development in South Sudan.

2.3 MANAGEMENT OF PETROLEUM REVENUES

Petroleum is a non-renewable resource. Revenues from this resource must be managed so that this wealth is transferred into other types of income generating wealth, such as physical capital and human capital, for economic growth and development.

Managing petroleum revenues is a central part of planning and economic policy. Hence, the phasing in of petroleum revenues into the economy of South Sudan is an essential part of fiscal policy and thus the responsibility of the Ministry of Finance and Economic Planning.

Savings rules for the petroleum revenues will be established and a guideline for how much should be used in each year's Fiscal Budget. A savings mechanism will be established to ensure that this rule will be enforced as far as possible.

These key principles for good practice economic and fiscal policies in resource-producing countries will be further elaborated

3. POLICIES FOR THE PHASES OF PETROLEUM ACTIVITY

3.1 PRE-LICENSE ACTIVITIES

3.1.1 Data Management and ownership

Geological, geophysical, petrophysical and production data is of vital importance for an efficient and effective management of the petroleum resources. All petroleum data is the property of the Government of South Sudan. It is the responsibility of companies and institutions involved in data acquisition to provide copies of the data to the Ministry of Petroleum and Mining without delay.

The Government will seek to make petroleum data easily available for oil companies and institutions who participate in the sector, with an objective to discover and develop petroleum resources in South Sudan. To ensure a safe and efficient management of the petroleum data, a National Petroleum Database should be established under the Ministry of Energy and Mining.

The access to petroleum data should be made easy, but at the same time respecting ~~the~~ its confidential nature and the commercial value. Hence, petroleum data acquired within a contract area will be kept confidential for a specified period or up to the time when the license expires or the area is relinquished. Special confidentiality conditions will be agreed when data is gathered for commercial purposes under a multi-client arrangement.

3.1.2 Pre license data requirements

The Government will ensure that licensing of an exploration area is first made when an adequate database has been established and properly analysed, providing a basis for definition of size and conditions for the exploration area. In areas where data is not available, the Government will encourage commercial surveys or independently finance data acquisition.

The Ministry of Petroleum and Mining will manage petroleum agreements and the licensing process and shall avail to prospective contractors/licensees all available petroleum data, the legal and fiscal framework and any other information considered appropriate for the application process.

3.1.3 Reconnaissance licensing

The Government will issue licenses as required limited to data acquisition and technical field studies. These licenses will in general be issued on a non-exclusive basis. However, exclusive reconnaissance for an area can be granted if found necessary to establish a commercial basis for a survey and following a competitive process.

3.1.4 Resource assessment and resource accounts

The Government recognises the vital importance of proper resource accounting for the planning and development of the petroleum sector. The continuous resource assessment and the establishment of a resource account is a responsibility of the Ministry of Petroleum and Mining. The resource accounts should be updated on a yearly basis and should be made generally available to the public.

3.2 LICENSING POLICY

3.2.1 Tempo and objectives of resource utilization

It is an objective of the Government to achieve a long-term predictable and if possible a sustainable level of production. This would provide for a certain stability in the future revenues and a predictable impact on other aspects of the economy. The Government recognises the long lead time from the exploration phase to the start of field production, and that licensing tempo is the main measure to impact future production.

Development planning shall aim to achieve maximum resource recovery and optimal use of infrastructure. The selection of licenses to be awarded and the tempo should take the

perspective of time-critical resources into account.

3.2.1 Transactions between companies

The sale and purchase of license interests between companies is considered a normal business activity. These transactions however, can only take place with Government consent. The Government will discourage participation from oil companies having license transactions as their business focus.

The Government will endeavour to match different project opportunities to the most suitable companies. Small oil companies should complement larger ones in mature areas where projects are becoming smaller.

3.2.2 Licensing regime

The Government will use the Exploration and Production Sharing Agreement (EPSA) as the primary legal and fiscal framework for the development of the petroleum resources.

The Government recognises the importance of international competition for attracting capacity and risk capital and will offer terms and conditions to the oil companies deemed necessary to attract investments. The petroleum potential will be decisive when terms are agreed.

3.2.3 Prior Contracts (EPSAs)

Petroleum activities on-going in South Sudan at the time of the secession from the Sudan shall be regulated by new petroleum agreements with the same production sharing arrangements as those contained in the prior contracts, subject to ~~the~~ certain further conditions.

However, the Government shall review the terms of these agreements to identify areas of non-compliance with the policy principles adopted and the needs of South Sudan. The contracts with the oil companies parties to prior contracts shall then be renegotiated. The Ministry must be empowered to carry out this review, in consultation with the Ministry of Finance and Economic Planning, renegotiate the contracts and enter into new

agreements, under the direction and with the approval of the National Petroleum and Gas Commission.

3.2.4 Licensing policy – competitive rounds

The Government will encourage the participation of all qualified oil companies in the licensing rounds being announced. The licensing will be carried out as an open and fair competitive process based on simple and transparent principles. Signature bonuses will not be made a criterion in the evaluation of applications.

3.2.5 Requirements of license applicants

The Government will define a set of criteria for oil companies to be accepted as participants in the licensing process. The requirements will relate to financial and technical capabilities as well as ethical standards. The potential applicants are required to present their profile with respect to the criteria. Only companies that comply with the specified requirements will be allowed as license applicants.

The Government may introduce additional requirements for oil companies to purchase data on the areas to be licensed.

3.2.6 Work programmes

The work programme shall effectively evaluate and test the possible petroleum potential of the whole contract area within the contract period. The work programme will normally require seismic coverage to be established and wells to be drilled if prospects have been defined.

The size of the license area and work programme should be balanced, ensuring that the principle of activity in the whole contract area will be met.

3.2.7 Allocation criteria

The licenses will be awarded based on the applications presented and a set of pre-defined criteria. These criteria will be related to financial and technical capacity, ethical

standards, the quality of the work programme and economical terms. The criteria and their weighting shall be published as a part of the license round announcement.

The Government will have the right to compose license groups and qualified applicants should confirm their willingness to work in a consortium.

3.2.8 *Exploration period and relinquishment*

There shall be a specified exploration period after which relinquishment shall be effected in accordance with the terms in the applicable legal framework.

An area fee increasing with time may apply as an incentive to encourage the relinquishment of exploration areas.

3.2.9 *Environmental & Social Impact Assessment (ESIA)*

All major petroleum projects require an ESIA to be conducted before approval can be given. All stakeholders should have an opportunity to review the ESIA document and comment on its findings and conclusions. The ESIA should be linked to a Strategic Social and Environmental Assessment (SEA).

3.2.10 *License block size.*

The Government will decide on the appropriate sizes of license blocks. The offered area shall be large enough to secure industry interest and a competitive process for license awards. The area shall not exceed what can be effectively explored during the license period, but still have sufficient geological promise to attract industry interest.

3.3 COMPANIES

3.3.1 *Key roles of international oil companies (IOC)*

The Government recognises the international petroleum industry to be an effective instrument to meet the goal of an efficient and prudent exploitation of the petroleum

resources to become sustainable values for the nation as a whole.

The Government expects the international oil companies to operate in a manner that conforms to international best practices and ensures that the national interest is safeguarded. This includes:

- To provide the risk capital required to efficiently explore the prospective areas
- To exploit the hydrocarbon resources in a sustainable and efficient manner while respecting environment
- To promote technology transfer and build the national capacity
- To carry the National Oil Company in the exploration phase and the development phase if other options to secure financing are not viable

3.3.2 *The roles of the National Oil Company (Nilepet)*

The Government shall have a right to direct state participation in all licenses awarded in ~~Southern~~South Sudan. A national oil company has been established to hold and take care of the Government's interests within the operational and commercial area of the petroleum activities. The key roles of the NOC are:

- To operate as a purely commercial entity and safeguard the national interest
- To develop capacity to become an operator in the longer term
- To develop a capable and competent management and technical workforce

3.3.3 *Private national oil companies*

The Government recognises the potential of private national oil companies for the sector development. It is the intent of the Government to provide favourable conditions for this part of the petroleum industry. Private national oil companies should be encouraged to enter joint ventures with international oil companies (IOC) to enhance national capacity building and technology transfer.

3.3.4 Development of local content

It is a goal of the Government to strengthen the national participation in the petroleum sector. Incorporation/registration shall be required of sub-contractors. The Government shall ensure that priority is given to the use of local employees, goods and services when meeting the oil industry requirements. The Government will introduce measures that can reduce the existing barriers with regards to competence, standards and financing, and take an active stance to develop a national base of oil sector workers, service companies and management capability in South Sudan.

3.4 DEVELOPMENT AND PRODUCTION

3.4.1 ~~Field Development Plan (FDP)~~ Plan for Development and Operation (PDO)

During the contract period the contractor/licensee should keep the Government informed of issues and progress. Before the licensee starts making commercial commitments on development, a comprehensive development plan (PDO) with detailed attachments including an ESIA should be submitted to the authorities. The plan should have a long-term perspective on resource utilisation and include considerations on increased oil recovery (IOR) and enhanced oil recovery (EOR). This ~~Field Development Plan - PDO~~ shall be approved by the Government and serves as a basis for issuing a production permit.

3.4.2 Energy conservation

The Government recognises that oil and gas are non-renewable resources and should be produced and utilised following best practices on energy conservation. The Government shall encourage the development of alternative renewable energy sources that will reduce the dependency on fossil fuels.

3.4.3 Gas utilisation and gas flaring

The Government shall ensure that associated gas is converted to energy consumption. The Government shall also establish a framework that will allow gas to be exported to the international market. The continuous venting of gas shall not be allowed. Gas flaring shall be avoided to the extent possible.

The contractors/licensees shall report the Government on discoveries once they are made and report within a predetermined time as the discovery is further evaluated. The licensees shall inform the Government on commercial aspects of discoveries on a continuous basis. In the event a discovery is not perceived commercial by the licensee, it should be given up as part of the normal relinquishment process.

~~3.4.6~~ 3.4.5 Unitisation

When an oil or gas field is crossing license boundaries, the licensees concerned shall agree on a unit development of the field. The Government shall have the right to decide on the unitisation process should the licensees fail to agree. In the event of a field crossing a national border, the Government shall negotiate a unitization treaty with the concerned country.

~~3.4.7~~ 3.4.6 Infrastructural consideration

The infrastructure for the field development including transportation and processing facilities shall be efficiently designed with due regard to social and environmental consideration. The Government shall ensure that the infrastructure is effectively and efficiently utilised. The access to and use of existing infrastructure shall be encouraged.

~~3.4.8~~ 3.4.7 Decommissioning and clean up

The decommissioning of installations and clean-up of the area affected by petroleum activities is the responsibility of the contractors/licensees. This responsibility shall be recognised and planned for from the start of exploration. When the termination of production is decided, a plan for the cessation of activities, removal of installations and the

restoration of the physical environment shall be presented. The plan shall be subject to approval by the authorities.

A fund shall be established to secure that the required clean-up can be carried out. The oil companies operating in South Sudan shall have adequate insurances to cover their liabilities.

3.5 TRANSPORTATION

3.5.1 *Petroleum export routes*

The Government shall ensure efficient and safe transportation of the oil and gas to the market. The transportation infrastructure shall be planned so that it minimises the negative impact on people and the environment.

~~In the case that the use of the existing oil export route is not technically, politically or economically viable, t~~The Government shall investigate ~~an~~ alternative transportation routes to a domestic or marine terminal delivery point that will benefit both the Government and the contractors/licensees.

Without prejudice to the ~~existing previous~~ oil export routes, the Government shall ~~construct~~ contribute to alternative routes for fields that are located far from existing transport routes.

3.5.2 *Tariffs and the right of use of pipelines*

The Government shall determine the tariffs and right of use of pipelines. If oil or gas is transported to neighbouring countries, the ~~G~~government will facilitate pipeline construction and operation through bilateral or multilateral arrangements.

3.6 DOWNSTREAM ACTIVITIES

3.6.1 *Refinery policy*

The Government shall consider the construction of refinery capacity to secure supply of petroleum products to local and regional markets and to add value to the crude oil.

3.6.2 *Sale of crude oil and gas*

The crude oil shall be sold through both local and international markets. The Government shall determine a mechanism for the sale of crude oil and gas. The complexity of the crude oil market, and the sensitivities of the marketing strategies, may suggest that the Government volumes are sold with the Nilepet volumes as one envelope. Joint marketing would dispense with the need to develop more than one crude oil sales organisation in South Sudan. The Ministry's group responsible for such joint oil sales since independence has been very successful so far in keeping pace of the marketing needs.

3.6.3 *Industrial use of oil and gas*

The Government shall encourage the use of oil and gas for industrial purposes in South Sudan to increase value creation.

3.6.4 *Pricing regulations*

The crude oil and gas for the international market shall be sold according to competitive international market prices. For fiscal and other Government revenue purposes, sales of crude oil or gas between related parties shall be recorded at comparable arm length prices (as if between independent, unrelated parties). The Government shall have the right to regulate the price of oil and gas sold in the domestic market if the market pricing mechanism is not effective in setting a free and fair product price.

However, the subsidising of petroleum products should be avoided as this will have a negative effect in relation to other Government policy goals.

4. OIL REVENUE MANAGEMENT

4.1 OIL REVENUE SHARING WITH THE PRODUCING STATES

Acknowledging that the resources within the territorial boundary of South Sudan belong to the people of South Sudan, the Government shall use the oil revenue appropriately and fairly for developing and improving the living standards.

The Government recognises the special position of the producing states and their right to benefit from the petroleum resources which are extracted from their area. The Government shall allocate a percentage of the oil revenue for their development in accordance with the percentage set out in the Transitional Constitution.

4.2 OIL REVENUE COLLECTION AND ALLOCATION

The management of the oil revenues shall be conducted by the Ministry of Finance and Economic Development –subject to approved procedures and in a transparent manner.

The oil companies will submit financial statements that are duly audited in accordance with international practice. by an external reputable and international auditor that is agreed upon by both parties.

4.3 PETROLEUM ACCOUNT

The Government shall implement a Petroleum Stabilization account to dampen the impact of volatile oil prices on the budget. The operations of the account shall follow agreed procedures in accordance to good governance principles.

The Government recognises that the petroleum revenues shall benefit both present

and future generations. The Government shall introduce savings rules implying that only part of the petroleum revenues shall be used for consumption purposes. —A savings mechanism will be established to ensure that the saving rule is enforced. This could be a Petroleum Fund or- a separate account in the Bank of South Sudan. The account should receive all Government petroleum revenues and should be transferred for use according to transparent and agreed rules.

4.4 FISCAL POLICY RULES

The following public management rules for sustainable fiscal policies will be observed, as a minimum:

- A transparent and comprehensive presentation of the petroleum revenues in the budget emphasizing the role of the non-petroleum deficit
- A set of sound long-term projections as a part of a realistic medium-term fiscal framework, including a set of well-defined budget classifications
- A system of flexible and transparent transfers from a separate Treasury Account in the Central Bank to finance the non-petroleum deficit
- Developing a unified budget process, avoiding earmarking mechanisms

5. POTENTIAL SOCIAL AND ECONOMIC IMPACT ON OTHER SECTORS

5.1 THE SOCIAL IMPACT

Oil and gas producing regions will attract labour and commercial activities that may lead to the collapse and abandonment of traditional sectors of the economy. There is a need to guide population movements and settlements triggered by oil and gas activities. Local industries supplying the oil and gas activities should as far as possible be spread throughout the country to avoid concentration around typically oil and gas centres of activity.

The Government of South Sudan shall establish a framework that can regulate the wages of people working in the oil industry. The regulations should take into account both the need to recruit the key capacities and the impact on the society.

The Government should use the money accrued from the oil industry to develop other industrial sectors in order to minimize migration of professionals into the oil industry.

5.2 OTHER COMMERCIAL SECTORS

The petroleum activities provide opportunities for industrial diversification. At present all oil from South Sudan is exported. There may be an opportunity for the country to develop a petrochemical industry. This would include industries like petroleum refining, the off shoot industries utilising the refinery by-products, together with industries arising from the possible utilisation of natural gas.

The Government shall promote the development of appropriate and efficient hydrocarbon related industry in the country and invite private sector investment in these developments.

The Government shall ensure that revenues generated from the oil sector in addition to providing basic services for the population shall be used to develop infrastructure and for protecting and diversifying the other non-oil sectors of the economy for long-term sustainability.

5.2.1 Agriculture

The petroleum revenue may significantly and positively impact on the country's agricultural sector through provision of energy services and infrastructure for rural agro-processing industries, together with the increased use of modern and mechanized agriculture and more affordable inputs like fuels and fertilizers.

The Government shall promote mitigation measures against people abandoning agricultural activities and migrating to the oil and gas sector. Mitigation measures could include using oil and gas to support agricultural zoning, agro-processing, agro-marketing, agro-inputs and pro-poor agrobiotechnologies.

5.2.2 Rural trade and industry

The Government shall stimulate the development of rural trade and industry. Fisheries are recognized as a sector for future growth. Incentives to enhance the development of the sector through economical support for equipment will be assessed.

~~Southern~~South Sudan has a significant potential for the development of a large tourist industry. The Government will use revenues from the petroleum activity to accelerate this process.

5.3 ECONOMIC RELATIONS WITH NEIGHBOURING COUNTRIES

~~Southern~~ Sudan shares infrastructure and transport facilities with The Sudan but due to current disagreements over the pipeline network, alternative routes with other neighbours will be assessed and will enter appropriate agreements in this respect

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may be entered into. Southern Sudan is also likely to face unitization issues on oil and gas fields straddling its borders. The Government recognizes international unitization principles as a basis for sharing these fields. ▲

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▲ There will be need for consultations with neighbouring countries for access where transport corridors like pipelines need to cross borders. In addition, sales of Southern Sudan's oil and gas may also require discussions or agreements with foreign countries. The Government shall establish and maintain cordial bilateral trade and other relations with neighbouring countries with the aim of promoting a regional market for petroleum and petroleum products. ▲

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▲ The political leadership shall strive to sign relevant agreements and treaties with the countries concerned.

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6. INSTITUTIONAL FRAMEWORK

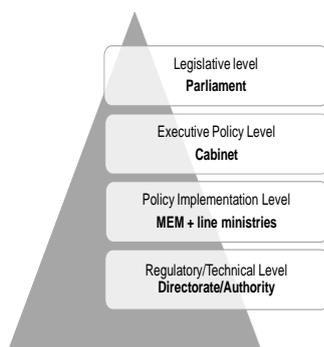
Efficient and practical institutional structure shall be strengthened or developed to enforce the desired governmental policy. The key roles of the Government and its regulatory bodies include:

- Establishing an oil and gas policy
- Establishing and developing legislation
- Organising the state's petroleum administration
- Planning and implementing licensing and entering into and implementing EPSAs.
- Monitoring operations and administering compliance
- Managing data from petroleum operations
- Ensuring the right national participation in petroleum operations
- Managing the impact of oil and gas activities on the economy, environment and social life
- Using petroleum revenues to create lasting benefits to society
- Adjusting framework conditions to meet any changes

6.1. PRINCIPLES

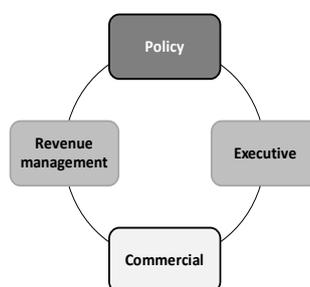
6.1.1. Levels of competence

The different levels of government have distinct roles in managing the petroleum sector and other commercial sectors of the economy. The levels of government authority are illustrated in the figure below:



6.1.2. Separation of the functions of government

The institutional structure shall reflect a desired separation between policy functions and the regulatory functions which ensure policy implementation. Most importantly the commercial functions of the state, such as the state equity held by Nilepet, shall be separate from the institutions charged with policy or regulatory functions.



6.2. KEY INSTITUTIONS AND THEIR FUNCTIONS IN PETROLEUM SECTOR MANAGEMENT

6.2.1 *National Legislative Assembly*

- Enacts petroleum legislation
- Enacts legislation for the management of petroleum revenues
- Monitors performance in the petroleum sector through policy statements and annual budgets
- Approves all petroleum agreements and ratifies all international agreements and treaties relating to petroleum

6.2.2 *Council of Ministers*

- Recommends legislation to Parliament
- Approves regulations made by MPM
- Approves oil and gas policy

- Consents to Plans for Development and Operations
- Consents to mid- and downstream investment programmes

6.2.3 *National Petroleum and Gas Commission*

- Provides general policy direction on petroleum resources;
- Acts as supervisory body over petroleum resource management;
- Approves production sharing agreements;
- Ensure co-ordination among all parties interested in petroleum activities

6.2.4 *Ministry of Petroleum and Mining*

The Ministry of Petroleum and Mining (MPM) is the central authority for management and development of the petroleum sector and regulation of petroleum activities. Hence, MPM:

- sets strategies, plans and programmes for the development and management of the petroleum sector;
- negotiates petroleum agreements
- manages petroleum resources;
- manages the relations of the Government with petroleum companies
- develops the necessary technical capacity and competence and provide it to the Commission;
- initiates and coordinates ESIA's;
- makes rules and regulations, approved by the Council of Ministers
- provides for mid and downstream activities, including selling of crude oil

6.2.5 *Petroleum Exploration and Production Authority*~~*Petroleum Regulatory Authority of South Sudan*~~

The regulatory body may be organized as a Directorate under the Ministry of Energy and Mining (MPM) or as an Authority under the same ministry. The important principle is that it is a professional body which evaluates, prepares and recommends on policy decisions

to be taken by MPM and other line ministries. It further regulates and controls the activities and operations carried out by the oil and service companies.

6.2.6 *Ministry of Finance and Economic Planning*

The role of the Ministry of Finance and Economic Planning is to ensure macroeconomic stability, which includes prudent fiscal management and ensuring appropriate distribution of government funds to provide efficient and effective delivery of services. Specific roles for the petroleum sector include:

- Formulate the fiscal regime for the petroleum sector and the government's petroleum tax and revenue policies
- Develop legislation, rules and procedures to regulate the collection, use and management of petroleum revenues, including the Oil Revenue Stabilisation Account and the Future Generation Fund
- Monitor and assess the impact of petroleum activities and spending of oil and gas revenues on the economy.
- Develop guidelines for the operation of the Petroleum Stabilization account in collaboration with MPM.
- Analyse the economic and social issues related to petroleum activities and plan for effective incorporation of these activities into the national economy.
- Ensure the petroleum revenues are managed in line with international standards for transparency and good governance including Extractive Industries Transparency Initiative (EITI) principles.

6.2.7 *Ministry of Health, Public Service and Labour*

Specific roles for the petroleum sector include:

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- Formulate regulations and standard on safety, occupational health in the oil and gas sector.
- Carry out regular statutory inspections to ensure adherence to the regulations
- Determine certification requirements-work permits for employment of expatriates coming to work with oil companies
- Disseminate the HSE culture to labour and communities
- Review the Health and Safety Management Plan submitted by licensees and contractors

6.2.8 Ministry of Environment in collaboration with MPM

Specific roles for the petroleum sector include:

- Formulate policies and regulations on social and environmental protection for oil and gas activities
- Formulate a national oil spill contingency plan
- Monitor the impact of oil and gas activities on the quality of ground and surface water bodies, surrounding flora, fauna and the atmosphere
- Monitor produced water volumes and ensure pollution load into water bodies meets the required standards
- Issue guidelines for environmental assessment
- Provide input during the consultation process to MPM on Strategic Social and Environmental Assessments (SEA) and baseline studies
- Review Environmental Management Plans (EMPs)
- Conduct environmental audits when necessary

6.2.9 Anti-Corruption Commission

The Anti-Corruption Commission shall have full mandate to report and investigate potential corruption in the petroleum sector. Its reports should be followed up if warranted by criminal investigations by the Ministry of Justice. It shall further work to raise

awareness about dangers of corruption by conducting seminars and workshops.

6.2.10 Oil producing states

Specific roles for the petroleum sector include:

- Ensure that the national petroleum policy is implemented in their respective states
- Ensure that locals are adequately compensated in case of loss of life, damage or loss of their property resulting from petroleum activities
- Ensure that the royalty due to oil producing states is used to create lasting benefits for all in their respective states
- Ensure that personnel, property and facilities of the oil companies are protected
- Ensure that community development activities financed from oil revenues are channelled in a way that it covers all the state, with emphasis on basic services such as education and health

6.3 INSTITUTIONAL STRUCTURE

Petroleum resource management on the national and regional level is complex and requires clear definition of roles and positive interaction between many different institutions.

Clear definition of functions and responsibilities, and well defined lines of authority and reporting shall ensure timely decision processes. Competent authorities are a key to obtaining effective and cost efficient development of the petroleum sector.

Principal functions and key lines of authority and communication are illustrated in the diagram below:

